### Academic Affairs - Course Proposal

**Academic Unit:** Computer Science  
**Department Chair:** Du Zhang

<table>
<thead>
<tr>
<th>Type of Course Proposal:</th>
<th>Date: March 28, 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>New  Change X  Deletion</td>
<td></td>
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</tbody>
</table>

**Does this course fulfill a requirement for single-subject or multiple subject credential students?**  
Yes ____  No X __

**For Catalog Copy:**  
Yes _X_  No __

**CCE:**  
Yes __ No _X__

**Change in title, prerequisite, and catalog description**

<table>
<thead>
<tr>
<th>Prefix &amp; No.</th>
<th>Title:</th>
<th>Units:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC 010</td>
<td>Introduction to Programming</td>
<td>3</td>
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</table>

**Semester Effective:**  
Fall _X_  Spring ____ 2006

**Prefix & No.**  
**Title:** Introduction to Programming Logic

**Units:**  
3

**NEW COURSE DESCRIPTION:** (Not to exceed 80 words, and language should conform to catalog copy.)

See [http://www.csus.edu/acaf/univmanual/crspsl.htm - Guidelines for Catalog Course Description](http://www.csus.edu/acaf/univmanual/crspsl.htm)

Introduction to computer science with an emphasis on programming concepts and methodology. Intended to assist students with little or no programming experience to understand the basic principles of programming logic. Topics include computer hardware and software, problem solving and algorithm development, flow of control, modular design using techniques that can be applied to common programming languages. Lecture two hours, technical activity and laboratory, two hours.

**Note:**

**Prerequisite:** Intermediate Algebra (Math 11 or equivalent)

**Corequisite:**

**CAN (California Articulation Number):**

<table>
<thead>
<tr>
<th>Graded:</th>
<th>Instructor Approval?</th>
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<tbody>
<tr>
<td>Letter X  Credit/No Credit</td>
<td>Yes ____ No <em>X</em>_</td>
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<tr>
<th>Course Classification:</th>
<th>Title for SIS+ (not more than 25 characters)</th>
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<tbody>
<tr>
<td>04 13</td>
<td>INTRO PROGRAMMING LOGIC</td>
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**Cross Listed?**  
Yes ___ No _X__

**If yes, with what course:**

**How Many Times Can This Course be Taken for Credit?** Once
**FOR NEW COURSE PROPOSALS OR SUBSTANTIVE CHANGES ONLY:**

### Description of the Expected Learning Outcomes:
Describe outcomes using the following format: “Students will be able to: 1), 2), etc.” See the example at [http://www.csus.edu/acaf/example.htm](http://www.csus.edu/acaf/example.htm)

Successful students will demonstrate the ability to:
- read and analyze problem descriptions.
- analyze the input and output needs for a specified problem.
- develop or choose appropriate algorithms for solving problems.
- design algorithms using the control structures of structured programming.
- represent algorithms using an approach acceptable in the modern software development industry.
- simulate the execution of algorithms using a systematic desk-checking approach.
- describe the relationship between algorithm design and computer programming in modern high-level programming languages.
- describe the relationship between simulated execution of algorithms (desk-checking) and the actual computer execution of programs that implement those algorithms.
- develop a modular design for a software implementation to solve a problem.
- describe several approaches for communication of data within a modular software design.
- use preconditions and post-conditions to describe the behavior of a “black-box” module.

**Attach a list of the required/recommended course readings and activities [Note: it is understood that these are updated and modified as needed by the instructor(s).] This attachment should be forwarded only to your Dean's office, not Academic Affairs.**

### Assessment Strategies:
A description of the assessment strategies (e.g., portfolios, examinations, performances, pre- and post-tests, conferences with students, student papers) which will be used by the instructor to determine the extent to which students have achieved the learning outcomes noted above:

Laboratory projects, lecture/discussion assignments that require algorithms, structure charts, and desk checks; statements about the purpose of the specific algorithm and comments throughout the algorithm; examinations.

### For whom is this course being developed?

<table>
<thead>
<tr>
<th>Majors in the Dept</th>
<th>Majors of other Depts</th>
<th>Minors in the Dept</th>
<th>General Education</th>
<th>Other</th>
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<td>____ X __________</td>
<td>____ X __________</td>
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Is this course required in a degree program (major, minor, graduate degree, certificate)?
- Yes
- No

If yes, identify program(s):

Does the proposed change or addition cause a significant increase in the use of College or University resources (lab room, computer facilities, faculty, etc.)?
- Yes
- No

If yes, attach a description of resources needed and verify that resources are available.

Indicate which department or programs will be affected by the proposed course (if any).

**The Department Chair's signature below indicates that affected programs have been sent a copy of this proposal form.**

### Approvals:
If proposed change, new course or deletion is approved, sign and date below. If not approved, forward without signing to the next reviewing authority, and attach an explanatory memorandum to the original copy.

<table>
<thead>
<tr>
<th>Signatures:</th>
<th>Date</th>
</tr>
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<tbody>
<tr>
<td>Department Chair:</td>
<td></td>
</tr>
<tr>
<td>College Dean or Associate Dean:</td>
<td></td>
</tr>
<tr>
<td>CPSP (for school personnel courses ONLY):</td>
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<tr>
<td>Associate Vice President and Dean for Academic Programs</td>
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Distribution: Academic Affairs (original), Department Chair and College Dean. Dean’s office to send original after approval to Jerri McAtee, at zip 6016. An electronic copy must also be sent to mcateejj@csus.edu.